

Remarks

Claims 1-6 were previously pending in this application.

Applicant confirms election of the invention of Group II, claims 3-6, without traverse, for prosecution in this application. Claims 1 and 2 are withdrawn from consideration as being directed to a non-elected invention.

As a result, claims 3-6 remain pending for examination. Claim 3 is currently amended to improve clarity by correcting a typographical error. No new matter is added.

Double Patenting Rejection

Claims 3-6 stand rejected under the judicially created doctrine of obviousness-type double-patenting over claims 1-15 of U.S. Patent No. 6,623,647. Applicant disagrees that the claims are not patentably distinct but enclose herewith a Terminal Disclaimer with respect to U.S. Patent No. 6,623,647 in compliance with 37 C.F.R. 1.321(c) to obviate the rejection.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under the judicially created doctrine of obviousness-type double-patenting.

Rejections under 35 U.S.C. § 103

Claims 3-6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teaching of Steininger *et al.* in U.S. Patent No. 5,895,565 (Steininger *et al.*) in view of the teaching of Martin in U.S. Patent No. 6,149,819 (Martin).

Applicant respectfully disagrees that claims 3-6 would have been obvious over the teaching of Steininger *et al.* in view of the teaching of Martin. The rejection is improper as failing to establish a *prima facie* case of obviousness. Moreover, Steininger *et al.* and Martin fail to recognize that selective oxidizer control can be performed thus an ordinarily skilled artisan would not have arrived at the invention as claimed and would not have had any reasonable expectation that the proposed combination would successfully perform as claimed.

The rejection is improper as failing to establish a *prima facie* case of obviousness because there is no teaching, suggestion, or motivation to modify or combine the teachings of the

references and result in a method of treating water in an aqueous system comprising steps or acts of measuring a first oxidizer concentration of a specific oxidizer in water in the aqueous system, determining a first oxidizer demand according to a difference between the measured first oxidizer concentration and a target first oxidizer concentration, controlling addition of the specific oxidizer to the aqueous system based on the first oxidizer demand, and controlling addition of a second oxidizer to the aqueous system based on an oxidation reduction potential of the water in the aqueous system.

Steininger *et al.* teach an integrated water treatment control system with probe failure detection that interchangeably utilizes a PPM or an ORP sensor to determine activation of a chemical feeder. (Steininger *et al.* at column 3, lines 6-20.) Martin teaches air and water purification using continuous breakpoint halogenation and peroxygenation by “optimizing the ratio of halogen donor(s) to peroxygen compound, while controlling their combined feedrate using ORP” which “effectively reduces or eliminates the problems resulting from the accumulation of volatile halogen substances.” (Martin at column 6, lines 2- 14.) Martin explains that this provides a continuous breakpoint condition that eliminates any need for “shocking” of the aqueous system. (Martin at column 2, line 35 to column 3, line 35.) In contrast, Steininger *et al.* teach that a “similar feeder can also be used to reduce the concentration of excess sanitizer by adding a reducing agent, such as after superchlorination.” (Steininger *et al.* at column 3, lines 6-20.) That is, Steininger *et al.* teach shocking techniques (superchlorination) and fail to recognize the advantages of continuous breakpoint halogenation techniques (avoiding the need for shocking techniques). Thus, because the principles of operation of the techniques disclosed by Steininger *et al.* differ from those principles utilized in the techniques disclosed by Martin, an ordinarily skilled artisan would not have combined the teachings. For the same reasons, an ordinarily skilled artisan would not have had any reasonable expectation that the differently principled techniques can be combined and successfully treat water as claimed.

Moreover, as noted above, Steininger *et al.* teach interchangeably utilizing a PPM sensor and an ORP sensor. Thus, Steininger *et al.* fail to recognize that ORP is influenced by a plurality of species contributing to overall oxidation-reduction potential and that selective control of a particular oxidizer in a multiple oxidizer system can be achieved by utilizing a specific sensor, instead of an ORP sensor. Martin also fails to recognize the distinction. In contrast, as noted in Table 1 of the specification of the present application, the addition of a peroxygen compound can

significantly influence the ORP measurement. Thus, neither reference teaches how addition of a first oxidizer and a second oxidizer can be controlled according to a first oxidizer concentration and an oxidation-reduction potential. Further, even if the teachings could have been combined, neither reference recognizes or explains how to selectively control addition of a specific oxidizer based on a first oxidizer concentration and addition of a second oxidizer based on oxidation reduction potential.

Therefore any *prima facie* case of obviousness is rebutted.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 3-6 under 35 U.S.C. § 103(a).

Conclusion

In view of the foregoing Amendments and Remarks, this application is in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this Response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/0214.

Respectfully submitted,
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